

Title (en)

USING SCATTEROMETRY TO DEVELOP REAL TIME ETCH IMAGE

Title (de)

VERWENDUNG VON STREULICHTMESSUNGEN ZUR ABBILDUNG DES ÄTZVORGANGES IN ECHTZEIT

Title (fr)

UTILISATION DE LA DIFFUSOMETRIE DANS LE DEVELOPPEMENT D'UNE IMAGE DE GRAVURE EN TEMPS REEL

Publication

EP 1402242 B1 20090603 (EN)

Application

EP 02707668 A 20020131

Priority

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Abstract (en)

[origin: WO03002990A2] A system (1000) for characterizing an etch process, such as forming a dual damascene structure, via scatterometry based real time imaging is provided. The system (1000) includes one or more light sources (1020), each light source directing light to one or more features and/or gratings (1015) on a wafer (1010). Light reflected from the features and/or gratings (1015) is collected by a measuring system (1070), which processes the collected light. The collected light is indicative of the etch results achieved at respective portions of the wafer (1010). The measuring system (1070) provides etching related data to a processor (1040) that determines the desirability of the etching of the respective portions of the wafer (1010). The system (1000) also includes one or more etching devices (1030), each such device corresponding to a portion of the wafer (1010) and providing for the etching thereof. The processor (1040) produces a real time etch image to characterize the progress of the etching and, in one example, produces suggested adaptations to the etch process.

IPC 8 full level

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